

**REMARKS**

***Summary of Amendments/Status of Claims***

Claims 2 and 10 have been amended, supplementally to the amendments made in Applicant's RCE-accompanying reply of December 15, 2008.

No claims have been added or canceled; **Claims 2, 10-12, 14-16, 19, 20, 22-26, 28-30, 33, 34, 37, 38 and 40-42** thus remain pending the Examiner's further consideration on the merits.

**Interview Summary Pursuant to 37 C.F.R. § 1.133(b)**

Because reconsideration is being requested in view of the telephone interview conducted by Applicant's undersigned representative on February 3, 2009 with Examiner Hoban and his supervisor, Michael Marcheschi, on Applicant's behalf the following summary is submitted.

- (1) Proposed claims 2 and 10 were submitted to the Examiners for discussion. Claim 2, directed to a composition, was the main focus of the discussion, but claim 10, directed to a method of manufacturing the claim 2 composition, was also discussed.
- (2) No specific prior art was discussed, but it was acknowledged that Applicant's RCE-accompanying reply of December 15, 2008, in view of prior art cited in the June 16, 2008 final Office action, amended the claims to exclude diamond as an optional constituent of the recited composite's principally carbon phase.
- (3) The issue prompting the proposed amendments was that reciting, as optional constituents of the carbon phase, amorphous carbon allotropes (including fullerenes) as having a "crystal/ grain size" was inherently contradictory. The substantive proposed amendments discussed were:
  - i. Applicant's suggestion to add the recitation "30 nm or less average crystal grain size" to claims 2 and 10 in a manner such that the recitation limits the claimed composite overall, not just the carbon-based phase itself; and
  - ii. The Examiners' suggested alternatives to reciting that the claimed pure carbon allotropes are of 30 nm or less "average crystal grain size."
- (4) Applicant's undersigned representative explained that Applicants, reasoning that although amorphous carbon allotropes are not crystalline, they may be said to have a granular structure, suggested striking the word "crystal" from the recitation, limiting the claimed carbon phase, "average crystal grain size."

The Examiners kindly suggested simply changing "average crystal grain size" to "average phase size," and also made other suggestions—adopted in the instant amendments—for clarifying the language of both claims 2 and 10.

Applicant's undersigned representative explained that the idea behind adding the new recitation at the end of claim 2 and early in claim 10 was to have the limitation "average grain size" apply to the entire ceramic composite, so that the limitation would involve the granular nature of the resulting composite as a whole, and not necessarily the carbon phase alone. Applicant's undersigned representative also noted that Applicant desired to leave the "30 nm or less" size limitation on the carbon phase, while at the same time having the "average grain size" limitation apply to the composite as a whole. Both Applicant's undersigned representative and the Examiners noted that the latter recitation might have redundancy over the former.

The Examiners then kindly suggested changing "said composite further characterized in having an average grain size of 30 nm or less" to "said ceramic phase further characterized in having an average grain size of 30 nm or less," thereby removing any redundancy.

- (5) Applicant's undersigned representative also explained that 「粒径」 (*ryuukei*), the Japanese term rendered in the present specification as "grain size," literally means "particle size/diameter." Concerning claim 10 (which depends from claim 2), Examiner Hoban pointed out that, in light of the suggested limitations to claim 2, the language of the size limitation on the recited powder blend should use for the size-limited entity a term that is generic to both "phase" and "grain." Examiner Hoban then kindly suggested using "particle," so that claim 10 recites, "a powder blend, having an average particle size of 30 nm or less," as adopted in the instant amendments.
- (6) Agreement was reached on the language of the amendments, which were deemed by Examiner Hoban to be necessary to resolve potential § 112 issues.

***Conclusion***

Accordingly, reconsideration is requested in view of the above-summarized telephone interview, and in view of Applicant's arguments in the December 15, 2008 reply, to which the instant reply is supplemental. It is believed that the issues—in particular, any potential § 112 issues—impeding allowance of this application have been resolved. Nonetheless, if despite Applicant's thus having made their best attempt to advance the prosecution of this case the Office finds that there are issues still standing in the way of allowance, the Examiner is courteously urged to contact Applicant's undersigned representative at an early date, for the sake of resolving any such issues so as to avert further rejection of the pending claims.

Respectfully submitted,

February 11, 2009

/James Judge/

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